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Salem, Oregon, USA 97301
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Model 4LSF Busbar Split Core Current Transformer

for Energy Monitoring and Sensing (XOBA, XOBA7)
AC Current Input, 50/60Hz 600VAC Rated, CAT IV
Listed to UL2808 & CSA C22.2 No. 61010-1

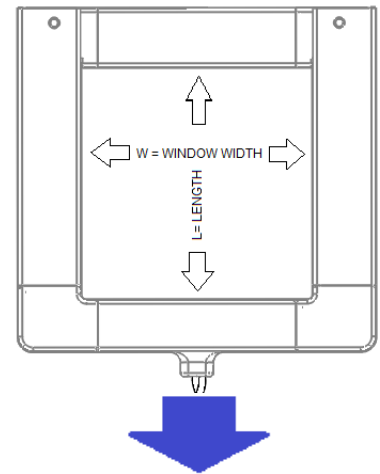
- Universal Molded Housing Construction
- 100A to 6000A > 500 Window Openings
- Select AC Volts or Current Ratio Output
- No Batteries or Power Supply Needed
- Standard Accuracy +/- 1% Table 201 IEC 61869
- Optional Accuracy +/- 0.5% Table 201 IEC 61869



The 4LSF split current transformers are indoor type for Measurement Category Class IV for use in energy monitoring and general electrical current sensing for field installations. The transformers have been designed and are manufactured in the US to meet the requirements of UL2808 plus CSA C22.2 No. 61010-1. They are provided with either internal burden resistors to set the AC output voltage, or current ratios for up to 0.333A output. The current output type is provided with an internal voltage suppressor for safety. Customer provides the external burden value to limit output current to 0.333A then selects full load input current and with window size. The table below is a list of standard bus bar sizes -- custom sizes are easily made using our universal housing construction method.

Specifications

- Input Current.....AC current, sinewave, single phase 50/60Hz
 - Voltage Rating.....600VAC rated CAT IV
 - Bandwidth.....50Hz to 400Hz
 - Output Voltages, standard.....80, 100, 250, 333, 500, 1000mV
 - Current Output (from turns ratios).....up to maximum of 333mA
 - Output Limiting.....14V peak transient voltage suppressor
 - Standard Accuracy.....Class 1 per Table 201 IEC 61869
 - Optional Accuracy (OP0.5).....Class 0.5 per Table 201 IEC 61869
- Note: Sentran Corp accuracies are better than table 11 with conductor or busbar located in the center and perpendicular to the window opening.
- Output Resistance (voltage output type).....< 100 ohms typical
 - Interface Resistance or Impedance.....Must be >100K ohms
 - Temperature Range, Environment.....-40°C to 70 °C
 - Continuous Current Rating Factor.....1X
- Note: This is a very conservative UL rating can be as high as 1.25X.
- Shorted Output Capability.....continuous at FLA
 - Dynamic Rating.....50 times FLA for 5 seconds once per 5 minutes
- Note: This is a Sentran Corporation conducted test.
- Altitude.....2000 meters, Pollution Degree.....3, Humidity.....95% non-condensing
 - Construction.....UL approved per UL2808 CAT IV PD 3
 - Lead Wires.....Black/white twisted, 18AWG MTW, UL1015 double insulated
 - Installation Label.....Label towards source for white lead positive



OUTPUT TABLE

MODEL 4LSF STANDARD MILLIVOLT OUTPUTS	MODEL 4LSF STANDARD MILLIAMP OUTPUTS
50mV	33mA
100mV	50mA
200mV	100mA
250mV	200mA
333mV	250mA
500mV	333mA
1000mV	



INSTALLATION INSTRUCTIONS FOR SAFETY
THIS SYMBOL MEANS: "DO NOT APPLY OR REMOVE FROM HAZARDOUS LIVE CONDUCTORS". IF THE CURRENT TRANSFORMERS ARE USED IN A MANNER NOT SPECIFIED BY SENTRAN CORPORATION THE PROTECTION PROVIDED BY THE CURRENT TRANSFORMER MAY BE IMPAIRED. INSTALLATION INSTRUCTIONS ARE PROVIDED WITH EACH SHIPMENT.

For Assistance Call:
1-888-390-2621 or email sales@sentrancorp.com



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 1-503-370-7377 sales@sentrancorp.com
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Part Numbers for Ordering

Model Series 4LSF Standard Popular Split Current Transformers
 333mV shown but can be substituted with millivolt outputs
 from 50mV to 1000mV or milliamps from 50mA to 333mA.

Sentran Corporation has molds to provide any size.



Window		Window		Window	
1.25X2.0	333mV Out	3.0X3.0	333mV Out	4.0X6.0	333mV Out
4LSF-400A:333mV-1.25X2.0		4LSF-200A:333mV-3.0X3.0		4LSF-2000A:333mV-4.0X6.0	
		4LSF-800A:333mV-3.0X3.0		4LSF-2500A:333mV-4.0X6.0	
1.5X2.0	333mV Out	4LSF-1000A:333mV-3.0X3.0		4LSF-3000A:333mV-4X6	
4LSF-600A:333mv-1.5X2.0		4LSF-2400A:333mV-2.0X3.0			
				5.0X5.0	333mV Out
1.5X3.5	333mV Out	3.0X3.5	333mV Out	4LSF-400A:333mV-5X5	
4LSF-600A:333mV-1.5X3.5		4LSF-800A:333mV-3.0X3.5		4LSF-1600A:333mV-5X5	
4LSF-800A:333mV-1.5X3.5				4LSF-1800A:333mV-5X5	
		3.0X4.0	333mV Out	4LSF-2000A:333mV-5X5	
1.5X4.0	333mV Out	4LSF-1600A:333mV-3.0X4.0		4LSF-2500A:333mV-5X5	
4LSF-800:333mV-1.5X4.0				4LSF-3000A:333mV-5X5	
4LSF-2000A:333mV-1.5X4.0		3.0X7.0	333mV Out		
		4LSF-4000A:333mV-3X7		5.0X7.0	333mV Out
2.0X2.0	333mV Out			4LSF-800A:333mV 5.0X7.0	
4LSF-100A:333mV-2.0X2.0		4.0X4.0	333mV Out	4LSF-1000A:333mV 5.0X7.0	
4LSF-200A:333mV-2.0X2.0		4LSF-400A:333mV-4.0X4.0		4LSF-2000:333mV-5.0X7.0	
4LSF-300A:333mV-2.0X2.0		4LSF-500A:333mV-4.0X4.0		4LSF-3000A:333mV-5.0X7.0	
4LSF-600A:333mV-2.0X2.0		4LSF-600A:333mV-4.0X4.0		4LSF-4000A:333mV-5.0X7.0	
		4LSF-800A:333mV-4.0X4.0		4LSF-5000A:333mV-5.0X7.0	
2.0x3.0	333mV Out	4LSF-1000A:333mV-4.0X4.0		4LSF-6000A:333mV-5.0X7.0	
4LSF-200A:333mV-2.0X3.0		4LSF-1200A:333mV-4.0X4.0			
4LSF-300A:333mV-2.0X3.0		4LSF-1600A:333mV-4.0X4.0		5.0X8.0	333mV Out
4LSF-400A:333mV-2.0X3.0		4LSF-2000A:333mV-4.0X4.0		4LS-3000A:333mV-5.0X8.0	
4LSF-500A:333mV-2.0X3.0					
4LSF-600A:333mV-2.0X3.0		4.0X4.5	333mV Out	6.0X6.0	333mV Out
4LSF-800A:333mV-2.0X3.0		4LSF-400A:333mV-4.0X4.5		4LS-1600A:333mV-6.0X6.0	
4LSF-1000A:333mV-2.0X3.0		4LSF-600A:333mV-4.0X4.5		4LSF-3000A:333mV-6X6	
4LSF-1500A:250mV-2.0X3.0		4LSF-800A:333mV-4.0X4.5			
		4LSF-1000A:333mV-4.0X4.5		6.0X8.0	333mV Out
2.5x2.5	333mV Out	4LSF-1200A:333mV-4.0X4.5		4LS-1200A:333mV6.0X8.0	
4LSF-200A:333mV-2.5X2.5		4LSF-1500A:333mV-4.0X4.5		4LSF-2400A:333mV-6.0X8.0	
4LSF-600A:333mV-2.5X2.5		4LSF-2000A:333mV-4.0X4.5		4LSF-3000A:333mV-6.0X8.0	
4LSF-800A:333mV-2.5X2.5		4LSF-3000A:333mV-4.0X4.5		4LSF-4000A:333mV-6.0X8.0	
4LSF-1000A:333mV-2.5X2.5		4LSF-4000A:333mV-4.0X4.5		4LSF-6000A:333mV-6.0X8.0	

Model 4LSF Busbar

Split Core Current Transformer

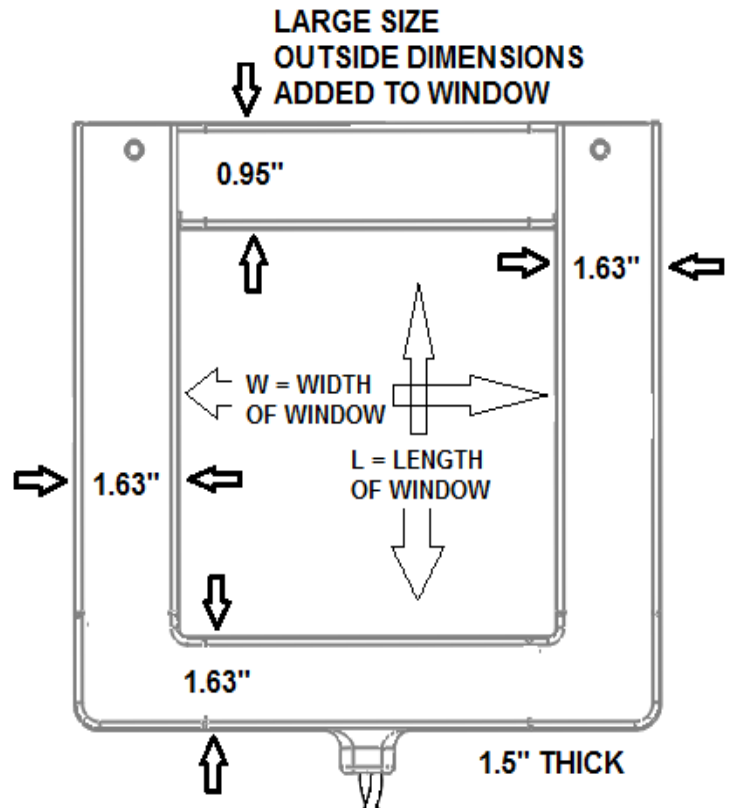
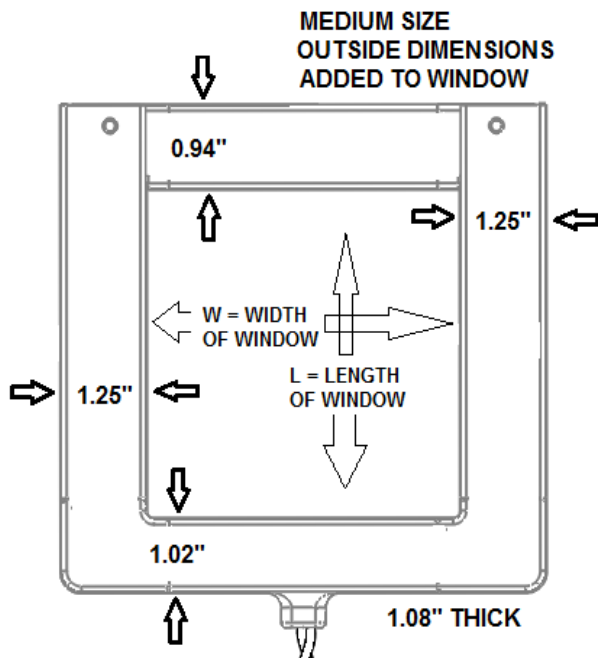
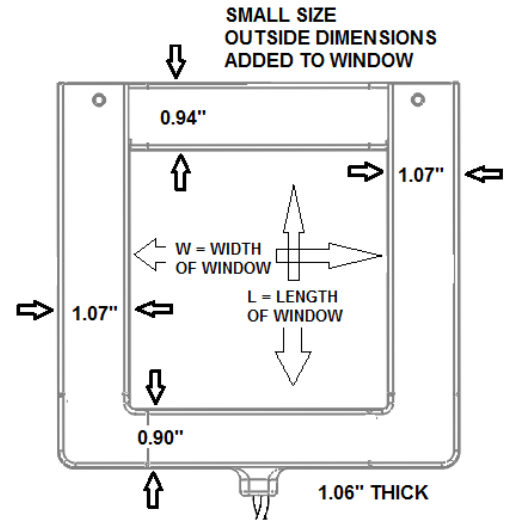
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HOW TO DETERMINE FINAL OUTSIDE DIMENSIONS:

Example of a 6000A, 6.0"x8.0" current transformer part number 4LSF-6000A:333Mv-6.0"x 8.0"

The large size universal housing will be required. The 6" is the width W and the 8" is the length L of the window opening. adding 1.63" + 1.63" +W 6" = 9.26" outside width and for the outside length add 0.95" + 1.63" =10.58"

Final OD is 9.26" wide and 10.58" long
 ID window is 6.0" x 8.0"





Model 4LSF Busbar

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TYPICAL 4LSF ACCURACY CURVES COMPARED TO IEC 61869

INTERNATIONAL STANDARD IEC61869

Table 201 – Limits of current error and phase displacement for measuring current transformers (classes from 0.1 to 1)

Accuracy class	± Percentage current (ratio) error at percentage of rated current shown below				± Phase displacement at percentage of rated current shown below							
					Minutes				Centiradians			
	5	20	100	120	5	20	100	120	5	20	100	120
0.1	0,4	0,2	0,1	0,1	15	8	5	5	0,45	0,24	0,15	0,15
0.2	0,75	0,35	0,2	0,2	30	15	10	10	0,9	0,45	0,3	0,3
0.5	1,5	0,75	0,5	0,5	90	45	30	30	2,7	1,35	0,9	0,9
1.0	3,0	1,5	1,0	1,0	180	90	60	60	5,4	2,7	1,8	1,8

